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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,477	09/13/2004	Clino Trini Castelli	39467/GM/lp	8228
7590 03/23/2006				
Modiano & Associati Via Meravigli 16 Milano, 20123 ITALY		EXAMINER ZETTL, MARY E		
		ART UNIT PAPER NUMBER		
		2875		

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No.	Applicant(s)	
	10/507,477	CASTELLI, CLINO TRINI	
	Examiner	Art Unit	
	Mary Zettl	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/13/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-26 and 38 is/are rejected.
- 7) ☒ Claim(s) 27-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/13/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 34 and 35 are objected to because it recites the limitation "said body" in line 21. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Ringleb (DE C-868 694).

Regarding claim 20, Ringleb teaches a two-sided illuminated panel, comprising a first diffuser (Figure 1, item 6) and a second diffuser (Figure 1, item 7) arranged so as to face each other and adapted to form internally at least one chamber, said chamber being closed laterally, comprising one or more light sources supported laterally, and further comprising at least one partition (Figure 1, item 3) arranged diagonally within said chamber, which is adapted to equalize the light emitted by said one or more light sources on said first and second diffusers.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 21 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringleb (DE C-868 694) in view of Koenck (US 5,673,999 A).

Regarding claim 21, Ringleb does not disclose expressly the partition being a Lambertian gauze. Koenck teaches an LCD backlighting method (Abstract) including a Lambertian gauze diffuser (woven diffuser; col. 3, lines 65-67). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Ringleb such that a Lambertian gauze diffuser was utilized as suggested by Koenck such that the light emitted across both sides of the display had uniform intensity.

Regarding claim 38, Ringleb further teaches the illuminated panel arranged so as to close upwardly the at least one chamber (Figure 1), however does not disclose expressly the panel having a reflective inner surface. Koenck teaches the panel having a reflective inner surface (col. 4, lines 33-35). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to take the invention of Ringleb and modify it such that the panel had a reflective inner surface in order to maximize the reflection of light into the diffusion panels.

4. Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringleb (DE C-868 694) in view of Koyama et al. (US 6,737,802 B2).

Regarding claim 22, Ringleb does not disclose expressly the partition being a transparent alveolate panel. Koyama et al. teach a partition for separating layers in a light emitting device (Abstract) with the partition layer being an alveolate panel (honeycomb lattice; col. 18, lines 37-39). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Ringleb such that the light emitted by the light emitting devices was refracted as desired.

Regarding claim 25, Ringleb does not disclose expressly the first and second diffusers being transparent alveolate panels. Koyama et al. teach a layer in a light emitting device (Abstract) being an alveolate panel (honeycomb lattice; col. 5, lines 5-8). At the time the invention was made it would have been obvious to modify the invention of Ringleb such that the first and second diffusers were transparent alveolate panels as taught by Koyama et al. in order to have enhanced the light scattering properties and the aesthetic appeal of the panel.

5. Claim 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ringleb (DE C-868 694) in view of Inui et al. (US 6,971,758 B2).

Regarding claim 23, Ringleb does not disclose expressly the use of LEDs as light sources. Inui et al. teaches a display panel comprising LEDs (col. 1, lines 13-19). At

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the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Ringleb such that the light sources were replaced with LEDs as suggested by Inui et al. since it was well known that LEDs are low power consumers and have a long lifespan.

Regarding claim 26, Ringleb further teaches the partition (Figure 1, item 2) arranged diagonally within the chamber of the illuminated panel, so as to cover one or more light sources (Figure 1, item 4) supported by one of covering elements (Figure 1, item 1) arranged to close laterally the chamber and so as to leave exposed one or more of the light sources supported by another one of the covering elements.

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ringleb (DE C-868 694) in view of Twachtmann (US 5,345,325 A).

Regarding claim 24, Ringleb does not disclose expressly the first and second diffusers being opalescent diffusers. Twachtmann (US 5,345,325 A) teaches a display device utilizing an opalescent (milky white) diffuser (col. 2, lines 65-68). At the time the invention was made it would have been obvious to one of ordinary skill in the art to have modified the invention of Ringleb such that opalescent diffusers were used as suggested by Twachtmann in order to create a uniform diffusion of light.

Allowable Subject Matter

7. Claims 27-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 27, prior art fails to teach or make obvious an illumination panel wherein a transparent alveolate partition comprises cannulas arranged at right angles to the light emission setting of one or more light sources.

Regarding claim 29, prior art fails to teach or make obvious an illuminated panel wherein the first and second diffuser elements form a plurality of chambers arranged parallel and adjacent to each other.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Konomi (US 2001/0022721 A1) teaches a double sided edge-lighting type display sign comprising at least two light sources (items 12 and 14) and either a horizontal partition (Figure 13, item 8) or a diamond shaped partition (Figure 21, item 50).

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Zettl whose telephone number is (571) 272-6007.


The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MZ



RENEE LUEBKE
PRIMARY EXAMINER